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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,614	07/28/2003	Keiichi Takashima	00862.023149	4181

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EXAMINER

BLACKWELL, JAMES H

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/627,614	Applicant(s) TAKASHIMA, KEIICHI	
	Examiner James H. Blackwell	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to an amendment filed 05/30/2006 with a priority date of **07/30/2002**.
2. Claims 1-22 are currently pending. Claims 1-6 and 11-16 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock et al. (hereinafter Hitchcock, U.S. Patent No. 6,460,042 filed 11/09/2001, issued 10/01/2002) in view of Girgensohn et al. (hereinafter Girgensohn, "Dynamic Forms: An Enhanced Interaction Abstraction Based on Forms", 06/27-29/1995, Interact '95 Conf. Proc., pp. 362-367).

In regard to independent Claim 1 (and similarly independent Claims 3 and 5), Hitchcock teaches reading a field data source including data to be overlaid onto fields defined in a form in that user information previously input into a form(s) is stored for future retrieval in a database (*field data source*) (Abstract).

Hitchcock also teaches *overlaying the data extracted from the field data source onto the fields in a form* in that subsequent form(s) encountered by the user are automatically pre-populated with information contained in the database (*field data*

source). The user only needs to input data that is not already stored. The data is initially stored as the user is filling out a first form(s) (Abstract).

Hitchcock fails to teach a *setting means for setting a character string for each of the fields as field attribute information, indicating a format of data to be overlaid, wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid*.

However, Girgensohn teaches defining form fields with an InputMask attribute (for a phone number "999 999-9999") assigned a default value that depicts the length (12 characters inc. space and "-"), format, and type (numbers, spaces, dashes) of input for that field (Pg. 364, Sec. 3.3 and Example of field being edited in Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Hitchcock and Girgensohn as both references relate to features of form field attributes. Adding the teaching of Girgensohn provides the benefit of more sophisticated data entry capabilities.

As stated above, Hitchcock teaches the limitation of *overlying* in that data is initially input to the fields of the form (first time) and stored in the database. When the user again accesses the forms, previously stored values in the database (*field data source*) are *automatically overlaid* into the form fields for which data was previously stored. Since the data was originally input with respect to type, format, and other validation rules embedded into the form, it would have been obvious to one of ordinary skill in the art at the time of invention that such data would have been correctly overlaid

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into the form fields since it had to have been input correctly the first time the user accessed the form, providing the benefit of accurate information transfer.

In regard to independent Claim 2 (and similarly independent Claims 4 and 6), Claim 2 (and similarly Claims 4 and 6) reflect the apparatus for processing forms as claimed in Claim 1 (and similarly Claims 3 and 5) and is rejected along the same rationale. Additionally,

Hitchcock fails to teach reading means for reading a character string set for each of the fields as field attribute information indicating a format of data to be overlaid, wherein the number of characters included in the character string defines the number of characters in data to be overlaid and each character included in the character string defines a kind of each character in data to be overlaid.

However, Girgensohn teaches defining form fields with an InputMask attribute (for a phone number "999 999-9999") assigned a default value that depicts the length (12 characters inc. space and "-"), format, and type (numbers, spaces, dashes) of input for that field (Pg. 364, Sec. 3.3 and Example of field being edited in Fig. 2). When the form is used, these attributes are read and then provide the means for inputting data of the correct length, type, and format and can additionally make translations (see Pg. 363, Sec. 3). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Hitchcock and Girgensohn as both references relate to features of form field attributes. Adding the teaching of Girgensohn provides the benefit of reading more sophisticated data entries into form fields.

In regard to dependent Claim 7, Hitchcock teaches that *the character string is composed of type specification characters; skip characters, fixed characters or a combination thereof* (Col. 10, lines 48-64; describes a line located in the Application Data File may be "SS_NUM"). Upon encountering the line, the forms engine will look into a data structure that stores the directive interpretation to interpret SS_NUM. SS_NUM may mean, for example, to display a text box with a label that reads "Enter Your Social Security Number" and to put the previously supplied value for social security number (stored in the User Attribute Table) into the text box. SS_NUM may also prescribe a minimum length, maximum length, and call a function that creates the text input box. The Application Data file can optionally supply arguments to directives. Arguments may, for example, instruct the forms engine to apply specific labels or to override default values, *so that the label or format for entering the data can be customized* (also refer to sample HTML markup label VALRULE, contains type INT, length Len(9), and whether input is required; Cols. 10-11).

Hitchcock also teaches that *the type specification characters indicating how corresponding data in the data of the field data source to be overlaid onto a field should be interpreted* (again, Cols. 10-11, sample HTML markup, parameter VALRULE Int tells that input is interpreted as an integer).

Hitchcock fails to teach *the skip characters indicating that any corresponding data in the data of the field data source to be overlaid onto a field should be skipped; and the fixed characters indicating that corresponding particular data in the data of the field data source to be overlaid onto a field should be skipped.*

However, it would have been obvious to one of ordinary skill in the art at the time of invention to assume that the invention of Hitchcock could have been modified to accommodate such features as an instruction to skip characters as it already provides for other such features, which are interpreted by the forms engine such, for example, the template line (Col. 11, line 51) which instructs that the input should be in the typical form of a social security number as seen in (Col. 12, lines 7-10). The point being that it expects input of a dash between number inputs. The dash in effect acts as a skip character.

5. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock in view of Girgensohn, and in further view of Rawat et al. (hereinafter Rawat, U.S. Patent No. 6,662,340 filed 05/30/2002, issued 12/09/2003).

In regard to dependent Claim 8, Hitchcock fails to teach *cutting a character string to be sequentially processed from the character string as a picture word*.
However, Rawat teaches mapping the fields of an electronic form by parsing visual page elements, such as user-visible field labels (Col. 3, lines 47-56).

Rawat uses this information to determine how to automatically populate the fields in a form without requiring prior mapping or examination of the form (compare with the limitation *cutting data of the field data source corresponding to the cut picture word as a field data word*).

Rawat also teaches *determining whether or not the picture word is composed of type specification characters and generating a data table having a pair of the picture*

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word and the field data word when the picture word is determined to be composed of type specification characters; and wherein the overlaying step overlays the data of the field data source onto the fields based on the data table in that the results are stored in mappings based on several analysis passes of the form and access to dictionaries (see Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Hitchcock and Rawat as both inventions relate to form field population. Rawat adds the benefit of extracting data type information from the form without prior analysis.

In regard to dependent Claim 9, Hitchcock teaches that *the field attribute information includes data types indicating kinds of data of the field data source to be overlaid* (refer to form code snippets in Cols. 10 and 11).

Hitchcock also teaches *wherein the overlaying step determines whether or not the number of the cut picture words is correct based on the data type, and, if the picture words lack in number, adds the missing picture words and field data words corresponding to the missing picture words, field data words, and then complements the added field data words* (see Cols. 11 and 12, code snippets).

In regard to dependent Claim 10, Claim 10 (and similarly Claim 22) contains subject matter that is similar to that found in Claim 1 (and similarly Claims 3 and 5) and is rejected similarly.

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6. Claims 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock in view of Girgensohn, and in further view of Brabrand et al. (hereinafter Brabrand, "PowerForms: Declarative client-side form field validation", 12/2000, Springer, pp. 205-214).

In regard to independent Claim 11 (and similarly independent Claims 13 and 15), Claim 11 (and similarly Claims 13 and 15) reflect the form processing apparatus as claimed in Claim 1 (and similarly Claims 3 and 5) and Claim 7, and is rejected along the same rationale.

In addition, Hitchcock fails to teach a *repetition number of the character string, and repeatedly spreading predetermined character data of the read character string based on the recognized repetition number*. However, Brabrand teaches a repetition attribute that applies further attributes to form field inputs (see Pg. 209, Sec. 2.4 Examples, related to Fig. 5 <repeat count="9"> for input of an ISBN number).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Hitchcock and Brabrand as both references relate to features of form field attributes. Adding the teaching of Brabrand provides the benefit of shorthand means to repeat a form field population step.

Hitchcock teaches overlaying means for extracting data from the field data source based on the spread character string, and overlaying the extracted data onto the field (see rejection of Claim 1 (and similarly Claims 3 and 5) and Claim 7) above.

In regard to independent Claim 12 (and similarly independent Claims 14 and 16), Claim 12 (and similarly Claims 14 and 16) reflect the form processing apparatus as claimed in Claim 1 (and similarly Claims 3 and 5) and Claim 7, and is rejected along the same rationale. In addition, the features of a repetition number and spreading means are addressed in the rejection of Claim 11 (and similarly Claims 13, and 15) above.

In addition, Hitchcock implies a *recognizing means for recognizing a character indicating that the data length of the data to be overlaid is variable; from the character string* in that the source code snippet (Col. 12, lines 5-29) contains an attribute of MAXLENGTH=2. This implies and allows inputs to be at most of length 2. Hence, this field is variable within the limit defined by this attribute.

In regard to dependent Claim 17, Hitchcock teaches that *the character string is composed of type specification characters; skip characters, fixed characters or a combination thereof* (Col. 10, lines 48-64; describes a line located in the Application Data File may be "SS_NUM"). Upon encountering the line, the forms engine will look into a data structure that stores the directive interpretation to interpret SS_NUM. SS_NUM may mean, for example, to display a text box with a label that reads "Enter Your Social Security Number" and to put the previously supplied value for social security number (stored in the User Attribute Table) into the text box. SS_NUM may also prescribe a minimum length, maximum length, and call a function that creates the text input box. The Application Data file can optionally supply arguments to directives. Arguments may, for example, instruct the forms engine to apply specific labels or to

override default values, *so that the label or format for entering the data can be customized*) (also refer to sample HTML markup label VALRULE, contains type INT, length Len(9), and whether input is required; Cols. 10-11).

Hitchcock also teaches that *the type specification characters indicating how corresponding data in the data of the field data source to be overlaid onto a field should be interpreted* (again, Cols. 10-11, sample HTML markup, parameter VALRULE Int tells that input is interpreted as an integer).

Hitchcock fails to teach *the skip characters indicating that any corresponding data in the data of the field data source to be overlaid onto a field should be skipped; and the fixed characters indicating that corresponding particular data in the data of the field data source to be overlaid onto a field should be skipped*.

However, it would have been obvious to one of ordinary skill in the art at the time of invention to assume that the invention of Hitchcock could have been modified to accommodate such features as an instruction to skip characters as it already provides for other such features, which are interpreted by the forms engine such, for example, the template line (Col. 11, line 51) which instructs that the input should be in the typical form of a social security number as seen in (Col. 12, lines 7-10). The point being that it expects input of a dash between number inputs. The dash in effect acts as a skip character.

In regard to dependent Claims 18-19, Claims 18-19 contain subject matter that is similar to that found in Claim 7 (and similarly Claim 17), and is rejected along similar lines of reasoning (in particular, refer to rejection rationale for skip characters)

7. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock in view of Girgensohn, and in further view of Brabrand, and in further view of Rawat.

In regard to dependent Claim 20, Hitchcock fails to teach *cutting a character string to be sequentially processed from the character string as a picture word*.

However, Rawat teaches mapping the fields of an electronic form by parsing visual page elements, such as user-visible field labels (Col. 3, lines 47-56).

Rawat uses this information to determine how to automatically populate the fields in a form without requiring prior mapping or examination of the form (compare with the limitation *cutting data of the field data source corresponding to the cut picture word as a field data word*).

Rawat also teaches *determining whether or not the picture word is composed of type specification characters and generating a data table having a pair of the picture word and the field data word when the picture word is determined to be composed of type specification characters; and wherein the overlaying step overlays the data of the field data source onto the fields based on the data table* in that the results are stored in mappings based on several analysis passes of the form and access to dictionaries (see Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Hitchcock and Rawat as both inventions relate to

form field population. Rawat adds the benefit of extracting data type information from the form without prior analysis.

In regard to dependent Claim 21), Hitchcock teaches that *the field attribute information includes data types indicating kinds of data of the field data source to be overlaid* (refer to form code snippets in Cols. 10 and 11).

Hitchcock also teaches *wherein the overlaying step determines whether or not the number of the cut picture words is correct based on the data type, and, if the picture words lack in number, adds the missing picture words and field data words corresponding to the missing picture words, field data words, and then complements the added field data words* (see Cols. 11 and 12, code snippets).

In regard to dependent Claim 22, Claim 10 (and similarly Claim 22) contains subject matter that is similar to that found in Claim 1 (and similarly Claims 3 and 5) and is rejected similarly.

Response to Arguments

8. Applicant argues that in the Hitchcock patent fails to teach (Examiner interpretation) with respect to the amended claims, that a form field only contains a single attribute; that being a character string used express to all of the attributes of length, type, and formatting of the eventual overlaid value. The Examiner would agree and withdraws the rejection. However, the Examiner introduces the prior art of both Girdensohn and Brabrand, which it is believed teach an input mask attribute (Girdensohn) as well as a repeat attribute (Brabrand).

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

10. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

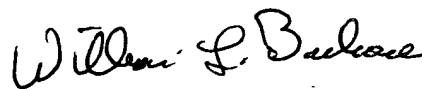
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H. Blackwell whose telephone number is 571-272-4089. The examiner can normally be reached on Mon-Fri.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather R. Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James H. Blackwell
08/11/2006


WILLIAM BASHORE
PRIMARY EXAMINER